

REMARKS

Claims 1-31 are presently pending in this application. By this Amendment, claims 1, 3, 4, 14, 15 and 16 are amended for clarification purposes. Claims 17-31 are added. Support for these amendments is found in the Application at, for example, pages 12, 18-21, 26-27 and in the Figures. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Applicants gratefully acknowledge the Office Action indication that claims 3-4 are directed to allowable subject matter. However, Applicants respectfully submit that all of claims 1-31 are allowable.

The Office Action objects to claims 1, 3, 4 and 16 for minor informalities. Claims 1, 3, 4 and 16 are amended to obviate these objections. Accordingly, Applicants respectfully request the withdrawal of the objections to claims 1, 3, 4 and 16.

The Office Action rejects claims 14 and 15 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants' regard as the invention. Specifically, the Office Action asserts claims 14 and 15 are rejected for improper antecedent basis.

Claims 14-15 have been amended for clarification purposes to recite "[t]he system." Thus, claims 14-15 are definite. Accordingly, Applicants respectfully request the withdrawal of the 35 U.S.C. §112, second paragraph rejection of claims 14-15.

The Office Action rejects claims 1, 2, and 5-16 under 35 U.S.C. §103(a) as unpatentable over "Latour – A Tree Visualization System," by

Herman et al. ("Herman") in view of various combinations of U.S. Patent No. 6,486,898 to Martino et al. ("Martino"), "Improving the Visualization of Hierarchies with Treemaps: Design Issues and Experimentation" by Turo et al. ("Turo"), "Cone Trees: Animated 3D Visualizations of Hierarchical Information" by Robertson et al. ("Robertson") and U.S. Patent No. 5,786,820 to Robertson ("820"). These rejections are respectfully traversed.

Applicants respectfully submit that Herman either alone or in combination with Martino, Turo, Robertson and the '820 reference simply do not disclose, teach or even suggest at least the features directed to: 1) dynamically identifying a focus node for any of said plurality of nodes; 2) generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling node order and corresponding to a node size; 3) laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure; and 4) identifying and performing any node compression necessary for boundingly displaying said hierarchically linked information based on the layout of said plurality of nodes, as recited in independent claim 1 and similarly recited in independent 16.

Moreover, neither Herman, Martino, Turo, Robertson nor the '820 reference, either alone or in combination disclose, teach or suggest at least the features directed to: 5) an input device for providing input to change view of said visualization of said collection of linked data based on dynamically selected linked data; and 6) a visualization processing element coupled to said display means and said input device, said visualization for creating a bounded tree structure visualization of said collection of

hierarchically linked data based on a Degree of Interest relative to said focus node and sibling node order and a size of said display area, as recited in independent claim 13.

Herman merely describes an application framework or toolkit that facilitates visualization and interaction with application data using various visualization techniques. For example, in Fig. 3, Herman, shows an unbounded graph. In Fig. 4, Herman appears to show a skeleton of a tree. There is no indication in the text, nor any illustration in the figures of Herman that the described Latour system deterministically produces bounded graphs.

At page 396, lines 23-25, Herman describes how “[b]ased on the complexity metrics of the nodes, Latour displays only those nodes whose metric value is greater than a specific cut-off, yielding what we have called the skeleton of the tree.” Herman merely displays a portion of the nodes satisfying selection criteria. Since the number of branches of the tree determines the width of the display at the branch level, Herman’s skeleton tree based on the selection criteria is not necessarily bounded. For example, if a sufficiently large number of branches occur at the first level of the tree shown in Herman, Fig. 4, the display either degenerates to a straight line and becomes unusable or is unbounded and requires scrolling. Thus, Herman fails to disclose, teach or even suggest all the features recited in independent claims 1, 13 and 16.

The schematic tree generating steps of Herman appear to operate from a root node to generate a general schematic view of the tree. This indicates that Herman selects a fixed root node for determining a skeleton or schematic tree. Thus, Herman also does not disclose, teach or even suggest

at least the claimed features directed to dynamically identifying a focus node for any of said plurality of nodes, as recited in independent claims 1 and 16.

The Office Action admits that Herman does not disclose at least the features directed to generating a degree of interest value for each of the plurality of nodes, said degree of interest value relative to said focus node and corresponding to a node size, as recited in independent claims 1 and 16 and similarly recited in claim 13. Applicants agree.

The Office Action attempts to remedy these admitted deficiencies of Herman by combining Herman with Martino. However, even assuming the existence of a motivation to combine Herman with Martino, which Applicants respectfully submit does not exist, any resultant combination fails to address all the recited features of independent claims 1, 13 and 16.

In particular, Martino, at for example, col. 3, lines 57-62 describes how the prominence of a node depends upon the separation from a user's point of reference. Thus, Martino also fails to disclose, teach or even suggest, at least the features directed to generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling node order and corresponding to a node size, as recited in independent claims 1 and 16. Moreover, Martino also fails to disclose, teach or suggest at least a visualization processing element coupled to said display means and said input device, said visualization for creating a bounded tree structure visualization of said collection of hierarchically linked data based on a Degree of Interest relative to said focus node and sibling node order and a size of said display area, as recited in claim 13.

Turo describes the use of treemaps to display information while Robertson describes the three dimensional display of information to increase the display space. The '820 reference describes increasing displayed detail of a tree structure by warping about an arbitrary surface for display. Thus, even assuming arguendo that Turo, Robertson and/or the '820 reference, could be combined, either singly or in combination with the asserted Herman-Martino combination, which Applicants submit cannot properly be done, the resultant combination also does not address all the features recited in independent claims 1, 13 and 16.

Claims 1 and 16 therefore define patentable subject matter over Herman, either alone or in combination with Martino, Robertson and the '820 reference. Claims 2 and 5-12 depend from claims 1 and 16 and therefore define patentable subject matter for at least the same reasons. Accordingly, Applicants respectfully request the withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1, 2, 5-12 and 16.

Independent claim 13 defines patentable subject matter over Herman and Martino for at least the reasons discussed above. Claims 14-15 depend from claim 13 and also define patentable subject matter for at least these reasons. Accordingly, Applicants respectfully request the withdrawal of the 35 U.S.C. § 103(a) rejection of claims 13-15.

In view of the foregoing remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

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Should the Examiner believe anything further is desirable in order to place this application in even better condition for allowance; the Examiner is invited to contact Applicants undersigned representative at the telephone number listed below.

Respectfully submitted,



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